



Environmental in Design-Build











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Safety

- Sign-in
- Who is CPR Qualified?
- AED
- Who will call 911?
- Evacuation
- Restrooms
- Breaks




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Course Purpose and Overview

1. Establishing Project Goals
2. Environmental Review and Permitting
3. Request for Qualifications
4. Contract Development
5. Proposer Selection and Award
6. Contract Implementation
7. Project Close-out

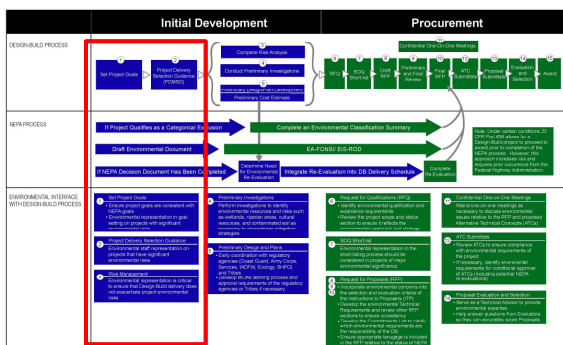

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1. Establishing Project Goals



Managing environmental risk starts at the earliest stages of the Project.

ESTABLISHING PROJECT GOALS



Project Goal: I-5 Chamber Way Bridge Emergency Repair and Replacement Project

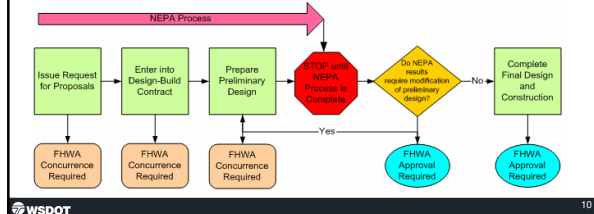
"Minimize Impacts: Minimize temporary construction impacts to the traveling public, adjacent property owners, and the environment as well as permanent environmental impacts through the use of effective design and construction methods."



DB Contracting and 23 CFR 636.109

Prior to Completion of NEPA Process:

- Issue RFQ prior to NEPA
- Issue RFP before or after NEPA
- Award D-B contract prior to NEPA
- Issue NTP for preliminary design prior to NEPA



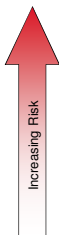
Understanding Risks

Allowed

WSDOT issues a RFP and awards a Design-Build contract before the NEPA process is complete.

Preferred

WSDOT completes NEPA, ESA, Section 106, and major permit acquisition prior to issuing RFP.



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Permitting Strategy Options

Permitting Strategy	Risks	Opportunities
Acquire permits prior to RFP issuance	<ul style="list-style-type: none"> - Unknown final design - Not enough info/data for a complete application - Permit "worst case scenario" - Unknown mitigation needs - May "over" mitigate - Multiple permit amendments 	<ul style="list-style-type: none"> - Permit requirements incorporated into RFP - Less risk of change orders - Less risk of cost escalation based on permit changes
Acquire permits after RFP issuance	<ul style="list-style-type: none"> - WSDOT schedule risk if permits are late - Schedule pressure on regulatory agency partners - Unknown permit requirements in RFP 	<ul style="list-style-type: none"> - Permits can incorporate known design, impacts & mitigation

(continued on the next slide)

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Permitting Strategy Options

Permitting Strategy	Risks	Opportunities
WSDOT to acquire permits	<ul style="list-style-type: none"> - Final design unknown - WSDOT assume risk of permit delays 	<ul style="list-style-type: none"> - WSDOT can start process prior to RFP
Design-Builder to acquire permits*	<ul style="list-style-type: none"> - Process doesn't start until NTP - WSDOT/owner is ultimately accountable - Schedule pressure on regulatory agencies - Increased cost with increased risk 	<ul style="list-style-type: none"> - Full knowledge of design & construction - Design-Builder assumes risk for acquiring on-time
<p><i>*Note: The Design-Builder can only acquire some permits independently. Most permits must be issued to the owner, however, the owner may authorize an agent (such as the Design-Builder) to act on their behalf.</i></p>		

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Pontoon Construction Project Permit Strategy: What permits did WSDOT obtain?

Permit	Approving Agency	When Submitted	When Re-submitted
WSDOT Obtained Aquatic Approvals <ul style="list-style-type: none"> • CWA Section 404/R&H Section 10 Permit • CWA Section 401 Certification • CZMA Certification • Hydraulic Project Approval • Aquatic Lands Use Authorization • Shoreline Substantial Development Permit • Critical Areas Compliance • Invasive Species Transport Permit 	U.S. Army Corps Ecology Ecology WDFW DNR Local Jurisdictions Local Jurisdiction WDFW	+2 weeks from DEIS Comment Period (January, '10)	Approximately 4 months after award
WSDOT Obtained Protected Species Approvals <ul style="list-style-type: none"> • Endangered Species Act • MBTA Consistency Determination • Eagle Acts Consistency Determination • Fish & Wildlife Coordination Act 	Services NMFS USFWS USFWS USFWS	January, '10	As needed
WSDOT Obtained Moorage Area Designation	Coast Guard	September, '09	NA
WSDOT Obtained Sampling Analyses Plan Approval	DMMO	August, '09	NA

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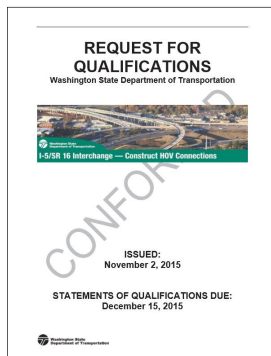
Pontoon Construction Project Permit Strategy: What permits did the Design-Builder obtain?

Permit	Approving Agency	When Submitted	When Re-submitted
D-B Obtained Approvals <ul style="list-style-type: none"> • PATON Permit • NPDES Construction Stormwater General Permit • NPDES Sand and Gravel General Permit • Dredge Disposal Site Use Authorization • Air Quality Notice of Construction • Street Use Permit • Building Permit 	Coast Guard Ecology Ecology DNR DNR Local Jurisdictions Local Jurisdiction Local Jurisdiction	As needed	As needed

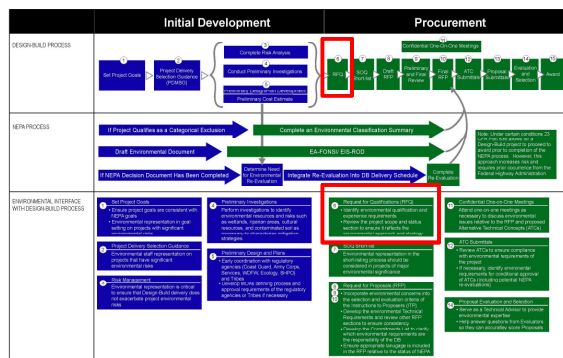
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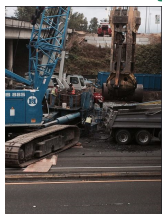
3. Request for Qualifications



RFQ



RFQ: SR 167 / 8th St. E. Vic to S 227th St. Vic – Southbound HOT Lane Project



"Major Participants will be evaluated on demonstrated project experience and performance. For each Major Participant, the Submitter shall relate relevant project experience for each of the applicable criteria:

- Experience designing and constructing wetland or stream mitigation sites greater than 2 acres in size.
- Experience completing major roadway transportation projects with excellent environmental compliance performance."

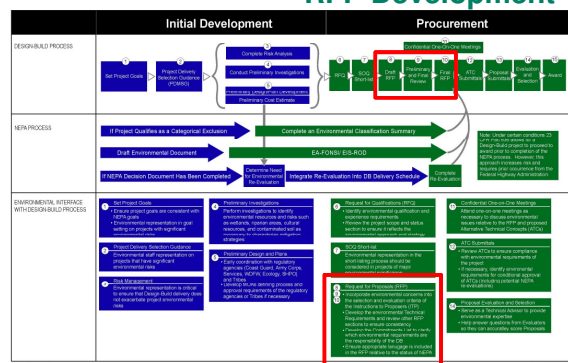
4. Contract Development



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RFP Development

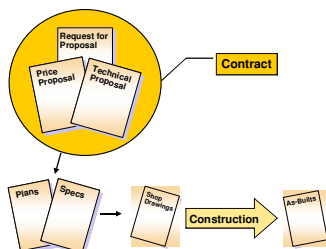


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What are the Components of a Request For Proposal (RFP)?

- Instructions to Proposers (ITP)
- Chapter 1
- Chapter 2
- Appendices



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Developing the RFP– What are the roles of environmental staff?

- Learn the Design-Build process
- Learn about the project and its risks
- Get involved early
- Attend kick-off and project coordination meetings
- Compile and incorporate environmental commitments
- Prepare RFP documents
- Coordinate reviews of contract documents

Instructions to Proposers (ITP) – Which components should environmental staff review?



INSTRUCTIONS TO
PROPOSERS
Washington State Department of Transportation

I-405 / SR 167 Interchange
Direct Connector Project

REVISIONS
December 17, 2016

PROPOSAL 1.000
Rev 1.000

1. General information

- Introduction
- Project goals
- Procurement schedule

2. Procurement Process

- Alternative Technical Concepts

3. Proposal Delivery, Content, Format

- Submittal Requirements

4. Proposal Evaluation Process

- Technical Evaluation Scoring Summary

Chapter 1: General Provisions

- Replaces Division 1 of the Standard Specs
 - Focus is on contract administration
 - Doesn't change between projects too much
- Environmental staff should review:
 - Definitions
 - Incentives
 - Schedule Requirements

Chapter 2: Technical Requirements

- Equivalent to contract special provisions
- Project specific requirements
- Identifies required submittals

Environmental staff should review:

- **Section 2.8 – Environmental**
- Section 2.9 – Communications
- Section 2.14 – Hydraulics
- Section 2.15 – Roadside Restoration (Landscape and Aesthetics)
- Section 2.28 – Quality Management Plan (QMP)
- Section 2.29 – Maintenance During Construction

RFP Appendices

- **Supplemental information helpful to Proposers**
 - Most are reference documents
 - Some are contractual
- **Which appendices are relevant to environmental staff?**
 - Appendix A1 – Appendices List
 - Appendix C – Commitments List
 - Appendix E – Environmental Documents
 - Appendix H – Hydraulic Report and Stream/Crossing Guidelines
 - Appendix P – Permits

Compile and Incorporate Environmental Commitments

- Cross discipline coordination is critical
- Technical specs need to be consistent with environmental commitments
- This process can help avoid claims following Notice to Proceed



Alternative Technical Concepts

Definition:

- A confidential request by a Proposer to modify a contract requirement specifically for that Proposer prior to the Proposal due date.
- **Overall “equal or better” project.**
 - Requests that merely delete scope or reduce performance *are not ATCs*.
- **Approval of the ATC is solely within WSDOT’s discretion.**
 - Must be fully approved before submission of the Proposal.

How is consideration for the environment reflected in the scoring process?

- Project Management Approach
- Preliminary Baseline Contract Schedule
- Technical Approach and Innovations
- Environmental Compliance and Innovation

RFP: SR 167 / 8th St. E. Vic to S 227th St. Vic – Southbound HOT Lane Project

ENVIRONMENTAL COMPLIANCE:

“WSDOT works with regulatory agencies to develop strategies to ensure the Project meets or exceeds environmental requirements. It is anticipated that the Design-Builder will ensure environmental compliance with no permit violations. WSDOT will rank highly those Proposers who commit to specific processes and/or Best Management Practices that exceed environmental requirements and are likely to reduce the risk of violations or preventable non-compliance events.”

Maximum Technical Credits: \$1,000,000

Best Value Determination:

Maximum Technical Credits:

Project Management/Collaboration	\$1,500,000
Project Management/Quality	\$1,000,000
Minimize Impacts	\$2,500,000
Forward Compatibility	\$1,000,000
Environmental Compliance	\$1,000,000

Proposal Price	Technical Score	Apparent Best Value
\$53,999,888	\$6,167,000	\$47,832,888
\$73,455,016	\$5,617,826	\$67,837,190
\$64,625,016	\$5,711,501	\$58,913,515

What is the role of environmental staff during scoring?

- Know the scoring process
- Know the environmental criteria
- Review the Proposals
- Identify strengths and weaknesses
- Coordinate with staff evaluating other environmental portions the proposals
- Make (and defend) Recommendations
- Identify "Betterments"

Identifying Betterments

- **Definition**
 - Any item included in the Design-Builder's Technical Proposal that clarifies the Design-Builder's intention to exceed a requirement included in the Contract Documents
- **The Betterments are listed higher in Order of Precedence.**

Lessons Learned

- Review the Instructions To Proposers and the RFP.
- Focus Technical Credits on reducing risk and encouraging innovation.
- Advocate for scoring environmental issues
- Allow plenty of time
- Document “Betterments”
- Consider having the WSDOT inspector assigned to oversee compliance help score the Proposals.

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6. Contract Implementation



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What is the role of the Design-Builder's compliance staff vs. WSDOT's compliance staff?

- WSDOT to provide oversight – **VERIFY** QUALITY
- Design-Builder to do the **HEAVY** lifting – **ENSURE** QUALITY



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WSDOT's Role as Owner

- Attend weekly task force meetings
- Provide "over the shoulder reviews" for key submittals
- Review submittals and provide comments consistent with contract
- Perform audits – quality verification!
- Support the DB's Environmental Compliance Manager (ECM)

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Design-Builder's Role in Environmental Issues

- Leads environmental and other task force meetings
- Submittals
- Site Log Book
- Environmental Monitoring: Water Quality, Hazmat
- Prepare Non Conformance Reports (NCRs)



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What happens following issuance of a Notice to Proceed (NTP)?

- Co-location of Teams
- Team Building
- Environmental Training
- Submittal Reviews
- Verifying Compliance During Construction

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Co-Location

- **Definition:**
 - locating both WSDOT and Design-Builder's staff in the same facility
- **Extent varies by project**
- **Fosters collaboration and communication**
- **Facilitates “over-the-shoulder” design reviews**



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Team Building

1. Know your team
2. Learn the requirements
3. Build relationships
4. Empower staff



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Environmental Training

- Design-Builder develops environmental training
- All staff attends
- Non-compliance reporting
- Procedures for new staff



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Submittal Reviews

- Know the environmental requirements
- Coordinate with other disciplines
- Be aware of possible permit modifications
- Have strong environmental representation



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Environmental Submittals

- Environmental Compliance Plan (SPCC, TESC, WQMPP)
- Quality Management Plan
- Wetland delineation confirmation letter
- Temporary Stream Diversion Plan
- Asbestos Containing Materials/Lead Based Paint (ACM/LBP) Survey(s)
- Plan sheets (site prep, stream crossings, landscaping, etc.)
- Permit revisions – updated JARPA drawings

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What Does the Environmental Compliance Plan Include?

Narrative

- Environmental Personnel
- Communication Protocols
- Environmental Protection Training
- Betterments from the Proposal

Stand-Alone Plans

- Temporary Erosion and Sediment Control (TESC)
- Water Quality Monitoring and Protection Plan (WQMPP)
- Spill Prevention Control and Countermeasures (SPCC)
- Fugitive Dust Control
- Unanticipated Discovery Plan

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Coordinate with other disciplines

- Review RFP for design commitments
- Create commitment lists by discipline for design reviews
- Attend other task force meetings to raise awareness
- Review other plan sheets and submittals

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Verify Compliance During Construction

- **Nonconformance Reports (NCR)**
 - Written by the Design-Builder
 - Usually product or workmanship
- **Nonconforming Issues (NCI)**
 - Written by WSDOT
 - Usually process related



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Permit modifications are often necessary...

- Alternative Technical Concept (pre-proposal)
- Change Order
- Notice of Design Change (NDC)
- Field Change Request (FCR)
- Nonconforming Issue (NCI)
- NonConformance Report (NCR)

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7. Project Close-Out



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Project Close-Out Activities

- Stabilizing Soils
- Removing temporary BMPs, fill, and restoration
- Agency notifications/coordination
- Documenting the Fulfillment of Commitments
- Reviewing As-Built Plans
- Hand off long-term commitments

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Lessons Learned

- Environmental staff are involved from beginning to end
- Don't wait until the end to begin closeout
- Clearly communicate expectations for As-Built plans
- Allow plenty of time for review
- Coordinate with Region Environmental Services Office

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WSDOT Design-Build Training

The WSDOT Design-Build Training Courses have the following modules:

- **In Person Courses:**
 - Design-Build 101 (*Prerequisite to this course*)
 - Design-Build Startup: Development of the Request for Qualifications and Instructions to Proposers
 - Design-Build Request for Proposals
 - Design-Build Office Management and Contract Administration
 - Design-Build Closeout Process
 - Environmental Issues in Design-Build
 - Quality Control/Quality Assurance in Design-Build
- **Online Courses:**
 - Statement of Qualifications Evaluation
 - Proposal Evaluation
 - Alternative Technical Concept Evaluation

Headquarters Design-Build Contacts

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Additional Resources

- WSDOT Design-Build Web Page
<http://www.wsdot.wa.gov/Projects/delivery/designbuild/Default.htm>
- Joint Transportation Committee of Washington State Legislature Design-Build Study
<http://leg.wa.gov/JTC/Pages/Design-Build-Study.aspx>
- WSDOT Design-Build Templates
<http://sharedot.eng/cn/hqconstr/dpb/DB%20Templates/Forms/AllItems.aspx>
- Design-Build Institute of America Best Practices
<https://www.dbia.org/resource-center/Pages/Best-Practices.aspx>
- Design-Build Institute of America Transportation Conference
www.dbia.org

Questions